

ITEM NO. 8

August 22, 2003

ERRATA SHEET

ORDER NO. R8-2003-0103  
WASTE DISCHARGE REQUIREMENTS  
FOR  
CITY OF CORONA  
BRINE WASTE DISPOSAL FACILITY

(Language added is shaded).

(Language deleted is strike-out).

1. Order No. R8-2003-0103, page 1 of 17, add Finding 5, as shown. All subsequent items shall be renumbered accordingly:
  5. The City currently maintains a Water Pollution Control reserve fund that sets aside monies for emergency repairs not covered by the regular Water Pollution Control budget. Funds to reline or decommission the brine ponds are available, if needed. Also, revenues generated through operation of the brine ponds can be allocated for maintenance and repair of the ponds, if necessary.
2. Order No. R8-2003-0103, page 6 of 17, revise Provision 17, as shown:
  17. The discharger shall ~~maintain~~ provide evidence of an existing irrevocable closure fund ~~or provide other means to ensure for repair,~~ closure, and post-closure maintenance of the brine ponds. ~~The closure fund shall be established (or evidence of the an existing, irrevocable closure fund shall be provided)~~ Evidence of the an existing, ~~irrevocable closure fund shall be provided~~ within 123 months of the adoption of this order.

California Regional Water Quality Control Board  
Santa Ana Region

STAFF REPORT

August 22, 2003

Item: 8

Subject: Revision of Waste Discharge Requirements for the City of Corona's Brine Disposal Facility, Riverside County, Order No. R8-2003-0082

**DISCUSSION:**

The City of Corona operates two brine disposal ponds, Brine Ponds No. 1 & 2, which are located at the City's Wastewater Treatment Plant in the City of Corona. These ponds are utilized for the disposal of brine waste from local industries and businesses. The City accepts water softener brine, demineralizer regeneration wastes, cooling tower and boiler blowdowns and reverse osmosis brine. The discharges to these ponds are currently regulated under Board Order No. 00-43.

Currently, Order No. 00-43 does not contain the freeboard requirement of the California Code of Regulations, Title 27. Title 27 Section 20375, states: "surface impoundments shall have sufficient freeboard to accommodate seasonal precipitation and the design storm, but in no case less than 2 feet (measured vertically, from the water surface up to the point on the surrounding lined berm, or dike, having the lowest elevation), and shall be designed and constructed to prevent overtopping as a result of wind conditions likely to accompany such precipitation conditions..."

Therefore, the Order is being updated to include the surface impoundment requirements of Title 27. These requirements are consistent with the Basin Plan, and other State and federal laws and regulations and are considered to be adequate for the protection of the beneficial uses of the waters of the region.

**RECOMMENDATION:**

Staff recommends adoption of Order No. R8-2003-0082 as presented.

**Comments were solicited from the following:**

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) - Terry Oda  
U. S. Department of Fish and Wildlife Service, Carlsbad  
State Water Resources Control Board, Office of the Chief Counsel - Ted Cobb  
State Water Resources Control Board, DCWP – Lisa Babcock  
State Department of Health Services, San Bernardino  
State Department of Water Resources, Glendale  
State Department of Fish and Game, Long Beach  
South Coast Air Quality Management District, Diamond Bar – Rick Gluck

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION**

**ORDER NO. R8-2003-0082**

**WASTE DISCHARGE REQUIREMENTS  
FOR  
CITY OF CORONA, WATER UTILITIES DEPARTMENT  
BRINE WASTE DISPOSAL FACILITY  
CLASS II SURFACE IMPOUNDMENT**

*Tentative*

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. The City of Corona, Department of Public Works (hereinafter discharger) owns and operates the City of Corona Brine Waste Disposal Facility (brine ponds). The facility is located in the southeast 1/4 of Section 21, T3S, R7W, SBB&M, as shown on Attachment A, which is hereby made a part of this order.
2. On June 30, 2000, the Board adopted Waste Discharge Requirements (WDR) Order No. 00-43, which incorporated the surface impoundment requirements of California Code of Regulations, Title 27. The brine ponds were originally regulated under Board Order No. 89-59 adopted on August 6, 1993, which replaced the previous WDRs, Order No. 81-150. Order No. 89-59 required the discharger to upgrade the brine ponds to meet the requirements of Chapter 15. The upgrades included lining the brine ponds and establishing a groundwater monitoring program. Order No. 00-43 is being updated to include a requirement to maintain a minimum freeboard of 2 feet measured vertically from the water surface.
3. In February 1991, the discharger completed the upgrades to both brine ponds required by Order No. 89-59. The upgrades included a 100-mil primary liner and a 60-mil secondary liner with a drainage layer between them that drains to a monitoring sump. The drainage layer and sump function as a leak detection and collection system. This system allows for monitoring the integrity of the primary liner by directing any leaked liquids into the monitoring sump where it can be measured and sampled. The upgraded brine ponds are 138.6 feet by 289 feet by 6.6 feet deep. The discharger also installed 4 groundwater monitoring wells.
4. The two lined wastewater disposal ponds, denoted as Ponds 1 and 2, are utilized mainly for the acceptance of highly mineralized wastewater (brine) from local businesses in the area. Acceptable waste streams to the brine ponds include: water softener brine; demineralizer regeneration wastewater; cooling tower and boiler blowdown; reverse osmosis brine; and other high TDS process water.
5. The Santa Ana Region Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region. The requirements contained in this order are necessary to implement the Basin Plan.
6. The facility overlies the Temescal Groundwater Subbasin, the beneficial uses of which are:
  - a. Municipal and Domestic Supply
  - b. Agricultural Supply
  - c. Industrial Service Supply
  - d. Industrial Process Supply

7. The Basin Plan established the following Water Quality Objectives for the Temescal Groundwater Subbasin:
  - a. Total Dissolved Solids (TDS) – 840 mg/l
  - b. Hardness – 440 mg/l
  - c. Sodium – 120 mg/l
  - d. Chloride – 180 mg/l
  - e. Nitrate nitrogen,  $\text{NO}_3\text{-N}$  – 9 mg/l
  - f. Sulfate,  $\text{SO}_4$  – 160 mg/l
8. The facility lies within the Upper Santa Ana River Basin approximately one mile south of the Santa Ana River, Reach 3, and adjacent to the Prado Flood Control Basin. Beneficial uses of surface waters include:
  - a. Agricultural Supply
  - b. Ground Water Recharge
  - c. Water Contact Recreation
  - d. Non-contact Water Recreation
  - e. Warm Freshwater Habitat
  - f. Wildlife Habitat
  - g. Rare, Threatened, or Endangered Species
9. The Basin Plan established the following Water Quality Objectives for the Santa Ana River, Reach 3:
  - a. TDS – 700 mg/l
  - b. Hardness – 350 mg/l
  - c. Sodium – 110 mg/l
  - d. Chloride – 140 mg/l
  - e. TIN – 10 mg/l (total inorganic nitrogen, filtered sample)
  - f.  $\text{SO}_4$  – 150 mg/l
  - g. Chemical Oxygen Demand, COD – 30 mg/l
10. The discharge of brines to land poses a threat to the quality of waters of the State because of their high salinity concentrations. Therefore, the Board has classified brine as a “designated waste” pursuant to Title 27. In accordance with Title 27, facilities that receive designated waste discharges are regulated as Class II facilities.
11. This project involves the continued operation of an existing facility and as such, is exempt from those provisions of the California Environmental Quality Act (Public Resources Code, §21000 et seq.) in accordance with §15301, Chapter 3, Title 14 of the California Code of Regulations.
12. The Board has notified the discharger and interested agencies and persons of its intent to prescribe WDRs for the facility, and has provided them with as opportunity to submit their written views and recommendations.
13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

**A. WASTE DISCHARGE SPECIFICATIONS**

1. All wastewater shall be maintained on property owned or controlled by the discharger.
2. As required by Title 27, §20375, a freeboard of at least 24 inches, measured vertically from the water surface to the lowest point on the top edge of the pond liner, shall be maintained in both ponds at all times to accommodate seasonal precipitation including rainfall from a 24-hour, 25-year storm.
3. The discharge of hazardous waste or designated wastes other than brine waste at the site is prohibited.
4. The discharge shall neither cause nor contribute to the contamination or pollution of surface water, soil or soil-pore liquid beneath the brine ponds, or groundwater, through the release of waste constituents.
5. The operation of the brine ponds shall not cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to §402.
6. The discharge shall not cause the concentration of any Constituent of Concern (COCs)<sup>1</sup> or monitoring parameter to exceed its respective background at any monitoring point assigned to detection monitoring pursuant to the attached M&RP No. R8-2003-0082.

**B. PROVISIONS**

1. The discharger shall comply with all waste discharge specifications, provisions, and monitoring and reporting requirements of this order immediately upon its adoption.
2. Compliance with these requirements shall be evaluated based on the following:
  - a. Periodic inspection by Board staff;
  - b. Evaluation of the monitoring reports submitted in accordance with the attached monitoring and reporting program; and
  - c. Any other relevant information.

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<sup>1</sup> "Constituents of Concern" are those constituents which are likely to be in the waste in the unit or which are likely to be derived from waste constituents, in the event of a release. The Constituents of Concern are listed in Attachments B, C, and D of the M&RP of this Order.

3. The discharger shall permit the Board staff:
  - a. To enter, photograph, and inspect the premises in which a discharge source is located;
  - b. To copy any records required to be kept under terms and conditions of this order; and
  - c. To sample any discharges.
4. The discharger shall maintain a copy of this order at the site so as to be available at all times to site operating personnel.
5. The discharger shall implement a Detection Monitoring Program in accordance with the attached M&RP No. R8-2003-0082 in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the brine ponds, or any unreasonable impairment of beneficial uses caused by or associated with discharges of waste to the brine ponds.
6. If the detection monitoring program detects a release of waste constituents at any on-site or downgradient monitoring wells in excess of the water quality protection standards established by the Executive Officer of the Board, the discharger shall institute an Evaluation Monitoring Program in accordance with §20425 of Title 27.
7. If the evaluation monitoring program establishes that any water quality protection standard has been exceeded at any ground water monitoring point, the discharger shall institute a corrective action program in accordance with §20430 of Title 27.
8. At any time, the discharger may file a written request, including appropriate supporting documents, with the Executive Officer of the Board, proposing any appropriate modifications to M&RP No. R8-2003-0082. The discharger shall implement any changes in the revised M&RP approved by the Executive Officer upon receipt of a signed copy of the revised M&RP.
9. The discharger shall notify the Executive Officer of the Board by telephone (909-782-4130) within 24 hours of any failure of facilities necessary to maintain compliance with requirements in this order. This notification shall be followed within 5 days by a written report to the Executive Officer; the report shall include, at a minimum, the following:
  - a. The approximate date and time of the discharge;
  - b. The flow rate and duration of the discharge;
  - c. The type and source of the discharge;
  - d. The location(s) where discharge(s) occurred;
  - e. Water sample collection points, with chain of custody records;
  - f. The cause of the discharge; and
  - g. A description of corrective actions implemented.

10. The discharger shall file a report of waste discharge with the Board at least 120 days before making any material or proposed changes to the operations of the brine ponds, or changes in the character, location, volume, or disposal methods of the discharge.
11. The discharger shall at all times maintain and utilize an approved operations plan, which shall include the following:
  - a. A description of the waste materials anticipated to be received;
  - b. A map showing the boundaries of the disposal site and waste disposal areas;
  - c. A general description of disposal site operations;
  - d. Ground water monitoring and other monitoring programs; and
  - e. Anticipated land use after termination of disposal operations.
12. The discharger shall notify the Executive Officer of the Board in writing of any proposed change in ownership or responsibility for construction, operation, closure or post-closure maintenance of the brine ponds. This notification shall be given prior to the effective date of the change and shall include a statement by the new discharger that construction, operation, closure, and post-closure maintenance will be in compliance with any existing WDRs and any revisions thereof.
13. In the event of any change in control or ownership of land or waste discharge facilities currently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this order by letter. A copy of this letter shall be signed by the new owner accepting responsibility for complying with this order, and shall be forwarded to the Executive Officer.
14. If any portion of the facility is to be closed, the discharger shall notify the Executive Officer of the Board at least 180 days prior to beginning any partial or final closure activities. The site closure must be performed in accordance with a closure plan approved by the Executive Officer of the Board and must conform to all applicable federal and state requirements.
15. Ninety days prior to the cessation of disposal operations at the facility, the discharger shall submit a workplan, subject to approval of the Executive Officer, for assessing the extent, if any, of contamination of natural geologic materials and surface waters (including ephemeral stream channels) by wastes. Within 120 days following workplan approval, the discharger shall submit an engineering report presenting results of the contamination assessment. A California registered civil engineer or certified engineering geologist must prepare the workplan, contamination assessment, and engineering report.
16. Upon ceasing disposal operations at the facility, all remaining wastes shall be completely removed from the site and disposed of in a manner approved by the Executive Officer.

17. The discharger shall **maintain** an irrevocable closure fund or provide other means to ensure closure and post-closure maintenance of the brine ponds. The closure fund shall be established (or evidence of an existing, irrevocable closure fund shall be provided) within 12 months of the adoption of this order.
18. Order No. 00-43 is hereby rescinded.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on August 22, 2003.

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Gerard J. Thibeault  
Executive Officer

**Attachment A - Location Map**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION**

**MONITORING AND REPORTING PROGRAM NO. R8-2003-0082  
FOR  
CITY OF CORONA, WATER UTILITIES DEPARTMENT  
BRINE WASTE DISPOSAL FACILITY  
CLASS II SURFACE IMPOUNDMENT**

**A. GENERAL**

1. This Monitoring and Reporting Program (M&RP) establishes the requirements for monitoring and reporting associated with the lined surface impoundments and ground water monitoring wells for the City of Corona Brine Waste Disposal Facility (brine ponds).
2. The discharger shall perform all monitoring activities in compliance with the water quality protection standards (water standards), and requirements of Title 27, § 20405.
3. Sample collection, storage, and analysis shall be performed according to the most recent version of Standard U.S. EPA Methods (U.S. EPA Publication SW-846).
4. Pursuant to §13176, Article 4, Chapter 3, Division 7 of the California Water Code, a certified laboratory registered by the State Department of Health Services shall perform all analyses. Specific methods of analysis must be identified.
5. All reports shall be signed by a responsible officer or a duly authorized representative of the discharger and shall be submitted under penalty of perjury.
6. All reports shall be maintained by the discharger and shall be retained for a minimum of five years.
7. The Executive Officer of the Board is hereby authorized to amend this M&RP.

**B. SITE MONITORING**

1. The total volume of wastewater discharged to the ponds shall be recorded monthly.
2. Each pond's freeboard shall be recorded in a permanent log on weekly basis. A summary of these observations shall be included in the quarterly report submittal. The permanent log shall be kept on site, and made available to Board staff upon request.
3. The presence and level of any liquid in each pond's leak collection and recovery system (LCRS) sump and any volume of liquid pumped from the LCRS back to the ponds shall be monitored and recorded each week. The discharger shall evaluate any amount of liquid in the sump and any amount pumped to the ponds from the LCRS to determine if the liquid is condensate or if it indicates leakage from the primary liner system. The discharger shall collect weekly samples of the liquid in the LCRS and in each pond, and shall analyze these samples for electrical conductivity (EC). A summary of these observations and the EC data shall be included in the quarterly report submittals.

4. Significant increases in EC levels in the LCRS sump liquid or in volume of liquid pumped from the LCRS and returned to the ponds shall be investigated in accordance with the operations plan. If either the discharger or the Board determines that there is significant physical evidence of leakage through the primary liner and into the LCRS sump, the discharger shall perform the following steps:
  - a. Collect a sample of the liquid and analyze it for the monitoring parameters in Table C of this M&RP;
  - b. Pump out all liquid from the LCRS sump;
  - c. Inspect the LCRS sump daily for a period of seven consecutive days for evidence of additional liquid;
  - d. If no additional liquid has accumulated in the LCRS sump within the seven-day period, then the discharger can return to the weekly inspection program;
  - e. If liquid has accumulated in the LCRS sump within the seven-day period, then the discharger shall immediately notify the Board of this fact and shall submit a corrective action proposal and an implementation schedule within 30 days.
5. On the last working day of each week, the discharger shall visually examine the integrity of the exterior structure and liner of the ponds for cracking and leakage, and record the findings in a permanent log. Any unusual appearance of the pond's exterior structure such as a leak or crack, and any indication of liner leakage, shall be reported immediately to the Executive Officer of the Board by phone at (909) 782-4130. A written report must be submitted within 5 days, and must include the following:
  - a. Description of discharge;
  - b. Possible cause of discharge;
  - c. Period of discharge, including date and time; and
  - d. Steps taken to identify and resolve the problem.

## **C. MONITORING PROGRAM**

1. General
  - a. Water quality protection standards shall be established in compliance with the requirements set forth in Title 27, §20390.
  - b. The discharger shall develop and update the Constituents of Concern<sup>1</sup> (COC) list in accordance with Title 27, §20395, as follows:

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1. **Constituents of Concern** are those constituents that are likely to be in the waste or that are likely to be derived from waste constituents in the event of a release.

- i. Annually in April, analyze the brine wastewater in each pond for all constituents listed in Table B;
  - ii. Constituents that are newly detected through this process shall be added to the facility's COC list, and shall become part of the facility's regular ground water monitoring program.
- c. The concentration limit for each COC and monitoring parameter shall be established in accordance with Title 27, §20400, and shall be used as the basis of comparison with water quality data from the facility's monitoring points.
- d. Monitoring points and the point of compliance shall be established in accordance with Title 27, §20405.
- e. The water quality compliance monitoring period for the facility shall be equal to the number of years the facility is active plus the closure period, or until the facility is determined to no longer pose a threat to water quality.
- f. The discharger shall propose a data analysis method pursuant to Title 27, §20415(e)(8).
- g. The discharger shall install any additional ground water or soil-pore liquid monitoring devices determined by the Executive Officer of the Board to be necessary to comply with this Order.

## 2. Water Quality Monitoring

The discharger shall comply with the requirements of Title 27, §20415 for water quality monitoring, as follows:

- a. The discharger shall conduct a Detection Monitoring Program (DMP), pursuant to Title 27, §20420.
- b. The discharger shall institute an Evaluation Monitoring Program (EMP) pursuant to Title 27, §20425, whenever there is evidence of a release from the brine ponds during the DMP. The discharger shall implement the EMP within 90 days after approval of the EMP by Board staff. The EMP shall be used to assess the nature and extent of the release from the facility, and to design a Corrective Action Program (CAP).
- c. Within 90 days of completion of the EMP, the discharger shall submit an Engineering Feasibility Study (EFS) and an amended Report of Waste Discharge (ROWD), pursuant to Title 27, §20425(c) and (d), to establish a CAP.
- d. The discharger shall implement the approved CAP, pursuant to Title 27, §20430, when the Executive Officer determines that the EMP and the design of the CAP have been satisfactorily completed, and the amended ROWD, submitted pursuant to Item c., above, has been approved.
- e. The compliance period for the CAP shall end when the discharger can demonstrate, to the satisfaction of the Executive Officer, that the site has been in continuous compliance with its water quality protection standards for a period of three consecutive years.

#### **D. QUARTERLY REPORTING**

1. All monitoring reports shall be submitted in accordance with the schedule shown in Table A. The discharger may propose an alternate schedule and the Executive Officer may approve the proposal or may require the discharger to comply with an alternate reporting frequency.
2. The reports shall include at a minimum the following:
  - a. A summary and interpretation of all monitoring data collected from the monitoring wells, wastewater ponds, and the LCRS sumps during the past monitoring period, including at a minimum:
    - i. A description and graphical presentation (e.g., arrow on a map) of the direction of ground water flow under the facility, based on water level elevations taken during the collection of the water quality samples;
    - ii. For each monitoring well addressed by the report, a description of the method and time of water level measurement, and a description of the method of purging used to remove stagnant water in the well before sampling, pursuant to Title 27, §20415(e)(12)(B); and
    - iii. For each monitoring point addressed by the report:
      - (a). A description of the type of pump or other device used, and its vertical placement for sampling; and
      - (b). A detailed description of the sampling procedure, including number and description of the samples, field blanks, travel blanks, and duplicate samples taken; the type of containers and preservatives used; the date and time of sampling; the name and qualifications of the person actually taking the samples; and any other observations.
  - b. Tabulated results of all analyses performed to demonstrate compliance with the requirements of this Order;
  - c. An evaluation of the effectiveness of the monitoring and containment facilities;
  - d. A map showing the locations of observation stations and monitoring points;
  - e. A summary and certification of completion of all visual monitoring and observations for the ponds;
  - f. The type and volume of wastewater discharged to the ponds since the submittal of the last report; and
  - g. A summary and discussion of any violations that occurred during the past monitoring period, and all actions taken or planned to correct these violations.

## **E. ANNUAL REPORT**

On January 31 of each year, the discharger shall submit an annual report to the Board covering the previous year's monitoring. This report may be submitted along with the fourth quarter detection monitoring report. The annual report shall contain:

1. A summary of the previous year's activities, including a summary of any violations of the requirements contained in this Order.
2. Tabulated results of all analyses performed to demonstrate compliance with the requirements of this Order;
3. Graphs of the analytical data, plotted in accordance with the requirements outlined in Title 27, §20415(e)(14);
4. A summary and interpretation of the analytical results of water and wastewater chemistry, indicating any changes made or observed since the previous annual report;
5. The total volume of wastewater discharged to the ponds;
6. A summary of the status of the ponds, including a summary of the observations noted during routine inspections and a summary of all repairs and maintenance;
7. A summary of any changes made to the design or operation of the ponds since the previous annual report; and
8. A report that validates the maintenance of the financial assurance mechanism, or proposes and substantiates any needed changes.

## **F. CONTINGENCY REPORTING**

Immediately upon discovery, the discharger shall report by telephone any spills, or leakage from the ponds, including the presence of any liquids in the LCRS sump. A written report containing at least the following information shall be filed with the Board within seven days of the initial report:

1. A map showing the location(s) of the spill, or leakage, if known;
2. An estimate of the flow rate;
3. A description of the nature of the discharge (i.e., all pertinent observations and analyses); and
4. Corrective measures underway or proposed, along with a time schedule for their implementation, if necessary.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on August 22, 2003.

Ordered by \_\_\_\_\_ Gerard J. Thibeault  
Executive Officer

**ATTACHMENT 1**

**REQUIRED WATER QUALITY MONITORING PROGRAMS**

<b>Type of Program</b>	<b>Monitoring Parameters</b>	<b>Monitoring Frequency</b>
Detection water quality monitoring	Appendix I constituents (Table B) And Inorganic parameters (Table C)	Quarterly
April brine wastewater COC analysis	Appendix I constituents (Table B) And Inorganic parameters (Table C)	Annually
Ground water COC analysis	Appendix I constituents (Table B) And Inorganic parameters (Table C)	Once every five years

**TABLE A**  
**MONITORING AND REPORTING SCHEDULE**

<b>Task Description</b>	<b>Monitoring Period</b>	<b>Report Due Date</b>
Quarterly water quality monitoring	January 1 – March 31	April 30 of each year
	April 1 – June 30	July 31 of each year
	July 1 – September 30	October 31 of each year
	October 1 – December 31	January 31 of each year
Quarterly general site Monitoring	January 1 – March 31	April 30 of each year
	April 1 - June 30	July 31 of each year
	July 1 – September 30	October 31 of each year
	October 1 – December 31	January 31 of each year
April brine wastewater COC analysis	April	July 31 of each year
Ground water COC analysis	April 2005 and every fifth year thereafter, alternately in October and April	July 31, 2005 and every fifth year thereafter, alternately on January 31 and July 31
Annual summary	January 1 – December 31	January 31 of each year

**TABLE B**

**APPENDIX I CONSTITUENTS**

<b>Inorganic Constituents</b>	<b>Organic Constituents – continued</b>
Antimony	p-Dichlorobenzene; 1,4-Dichlorobenzene
Arsenic	Trans-1,4-Dichloro-2-butene
Barium	1,1-Dichloroethane; Ethylidene chloride
Beryllium	1,2-Dichloroethane; Ethylene dichloride
Cadmium	1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride
Chromium	Cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene
Cobalt	Trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene
Copper	1,2-Dichloropropane; Propylene dichloride
Lead	Cis-1,3-Dichloropropene
Nickel	Trans-1,3-Dichloropropene
Selenium	Ethylbenzene
Silver	2-Hexanone; Methyl butyl ketone
Thallium	Methyl bromide; Bromomethane
Vanadium	Methyl chloride; Chloromethane
Zinc	Methylene bromide; Dibromomethane
	Methylene chloride; Dichloromethane
<b>Organic Constituents</b>	Methyl ethyl ketone; MEK; 2-Butanone
Acetone	Methyl iodide; Iodomethane
Acrylonitrile	4-Methyl-2-pentanone; Methyl isobutyl ketone
Benzene	Styrene
Bromochloromethane	1,1,1,2-Tetrachloroethane
Bromodichloromethane	1,1,2,2-Tetrachloroethane
Bromoform; Tribromomethane	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene
Carbon disulfide	Toluene
Carbon tetrachloride	1,1,1-Trichloroethane; Methylchloroform
Chlorobenzene	1,1,2-Trichloroethane
Chloroethane; Ethyl chloride	Trichloroethylene; Trichloroethene
Chloroform; Trichloromethane	Trichlorofluoromethane; CFC-11
Dibromochloromethane; Chlorodibromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane; DBCP	Vinyl acetate
1,2-Dibromoethane; Ethylene dibromide; EDB	Vinyl chloride
o-Dichlorobenzene; 1,2-Dichlorobenzene	Xylenes

**TABLE C**

**INORGANIC CONSTITUENTS**

<b>Parameter</b>	<b>EPA Method</b>	<b>Parameter</b>	<b>EPA Method</b>
Total Hardness	130	Total Dissolved Solids	160.1
Bicarbonate (HCO <sub>3</sub> )	310.2	Chemical Oxygen Demand	410
Carbonate (CaCO <sub>3</sub> )	310.2	Phenols	420.1
Total Alkalinity	310.1	Total Organic Carbon	415
Total Cations	<sup>2</sup>	Total Organic Halogens	450.1
Total Anions	<sup>1</sup>	Calcium (Ca)	200.7/215
Hydroxide (OH)	<sup>3</sup>	Magnesium (Mg)	200.7/242.1
Chloride (Cl)	325	Manganese (Mn)	200.7/243.1
Fluoride (F)	340	Potassium (K)	200.7/258.1
Nitrate (NO <sub>3</sub> )	353.2	Sodium (Na)	200.7/273.1
Sulfate (SO <sub>4</sub> )	375	Iron (Fe)	200.7/236.1
Phosphate (PO <sub>4</sub> )	365.2	Zinc (Zn)	200.7/289.1
Total Phosphorus	365.1/365.2		
Boron (B)	212.3/200.7		
Specific Conductance (Electrical Conductivity - EC)	120.1		
PH	150.1		

2 Total cations and anions are determined by the summation of all cations and anions, respectively, in the sample analyzed.

3 The standard method, SM 2330B, in the "Standard Methods for the Examination of Water and Wastewater" for hydroxide ion analysis shall be used.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION**

**ORDER NO. R8-2003-0082**

**WASTE DISCHARGE REQUIREMENTS  
FOR  
CITY OF CORONA, WATER UTILITIES DEPARTMENT  
BRINE WASTE DISPOSAL FACILITY  
CLASS II SURFACE IMPOUNDMENT**

*Tentative*

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. The City of Corona, Department of Public Works (hereinafter discharger) owns and operates the City of Corona Brine Waste Disposal Facility (brine ponds). The facility is located in the southeast 1/4 of Section 21, T3S, R7W, SBB&M, as shown on Attachment A, which is hereby made a part of this order.
2. On June 30, 2000, the Board adopted Waste Discharge Requirements (WDR) Order No. 00-43, which incorporated the surface impoundment requirements of California Code of Regulations, Title 27. The brine ponds were originally regulated under Board Order No. 89-59 adopted on August 6, 1993, which replaced the previous WDRs, Order No. 81-150. Order No. 89-59 required the discharger to upgrade the brine ponds to meet the requirements of Chapter 15. The upgrades included lining the brine ponds and establishing a groundwater monitoring program. Order No. 00-43 is being updated to include a requirement to maintain a minimum freeboard of 2 feet measured vertically from the water surface.
3. In February 1991, the discharger completed the upgrades to both brine ponds required by Order No. 89-59. The upgrades included a 100-mil primary liner and a 60-mil secondary liner with a drainage layer between them that drains to a monitoring sump. The drainage layer and sump function as a leak detection and collection system. This system allows for monitoring the integrity of the primary liner by directing any leaked liquids into the monitoring sump where it can be measured and sampled. The upgraded brine ponds are 138.6 feet by 289 feet by 6.6 feet deep. The discharger also installed 4 groundwater monitoring wells.
4. The two lined wastewater disposal ponds, denoted as Ponds 1 and 2, are utilized mainly for the acceptance of highly mineralized wastewater (brine) from local businesses in the area. Acceptable waste streams to the brine ponds include: water softener brine; demineralizer regeneration wastewater; cooling tower and boiler blowdown; reverse osmosis brine; and other high TDS process water.
5. The Santa Ana Region Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region. The requirements contained in this order are necessary to implement the Basin Plan.
6. The facility overlies the Temescal Groundwater Subbasin, the beneficial uses of which are:
  - a. Municipal and Domestic Supply
  - b. Agricultural Supply
  - c. Industrial Service Supply
  - d. Industrial Process Supply